

GP-303459

## SYSTEM AND METHOD OF COMMUNICATING TRAFFIC INFORMATION

### ABSTRACT OF THE DISCLOSURE

A system and method of automatically communicating traffic information from a traffic probe vehicle to a traffic information and management system when the probe vehicle is operated within an active traffic information reporting region. Geographic information about a traffic reporting region, or plurality of regions, is stored in the probe vehicle as an array of geographic cells so as to reduce the data storage requirements. The geographic cells have associated with them certain cell parameters related to the cell, such as a recording priority, a recording interval and a reporting interval. The recording priority of a cell may be associated with certain roadway types located within that cell. As a probe vehicle travels within an active traffic information reporting region, its location is established within the traffic information reporting region and a corresponding geographic cell, wherein certain vehicle data are recorded and stored in the vehicle for transmission to the traffic information and management system in accordance with the cell parameters. These cell parameters may be selected so as to reduce the volume of information and the frequency of communication required, thereby minimizing communication costs associated with the implementation of the method.